

APRIL/MAY 2023

**GEAM24B/DEAM24B — BIOFERTILIZER
TECHNOLOGY**

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define bacteria.
2. Name two fungi used as fertilizer.
3. What are phosphate solubilizing microbes?
4. What is nitrification?
5. Name two free living nitrogen fixers.
6. Define inoculum.
7. Define symbiosis.
8. Name two microorganisms used in paddy field as biofertilisers.
9. What is ecto mycorrhizae?
10. Name two phosphate solubilizer.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Discuss the advantages of biofertilizer over chemical fertilizer.

Or

- (b) Write the general characteristics of *Glomus*.

12. (a) What are the parameters to be tested for determining soil fertility?

Or

- (b) Explain the process of preparing vermicompost.

13. (a) Explain the inoculation methods of *Azospirillum* in field.

Or

- (b) Elaborate the process of isolation of *Azotobacter*.

14. (a) Summarize the isolation of Cyanobacteria.

Or

- (b) Explain the mass cultivation of *Azolla*.

15. (a) Describe the importance of mycorrhizae in agriculture.

Or

- (b) Explain the isolation of phosphate solubilizers.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the general characteristics of *Anabaena*.

17. Explain the mechanism of phosphate solubilization.

18. Elaborate the Isolation, purification, mass production of *Rhizobium* inoculants.

19. Explain the mass multiplication of cyanobacterial bioinoculants by tank method.

20. Elaborate the isolation and mass production of AM inoculants.